Amendments to the Claims

Please amend Claims 1, 13 and 25. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) A device implemented method of communicating data from a low security assurance source to a high security assurance destination comprising:

receiving data from a low security assurance source according to a communication protocol and transferring the data to a high security assurance destination according to the communication protocol;

receiving a high end acknowledgment for said data according to the communication protocol from the high security assurance destination;

generating an acknowledgment trigger signal in direct response to the high end acknowledgment for said data; and

generating a low end acknowledgment for said data according to the communication protocol in response to the acknowledgment trigger signal.

2. (Original) The method of claim 1 further comprising:

determining whether to generate an acknowledgment trigger signal.

3. (Original) The method of claim 2 wherein determining whether to generate the acknowledgment trigger signal comprises:

determining whether the high end acknowledgment includes information data; and

generating no acknowledgment trigger signal if information data is included in the high end acknowledgment.

4. (Original) The method of claim 2 wherein determining whether to generate the acknowledgment trigger signal comprises

determining whether the low security assurance source is authorized to receive acknowledgments; and

generating no acknowledgment trigger signal if the low security assurance source is not authorized.

5. (Original) The method of claim 1 further comprising:

delaying the acknowledgment trigger signal in order to delay generation of the low end acknowledgment.

6. (Original) The method of claim 1 wherein the acknowledgment trigger signal includes header data for generating the low end acknowledgment.

7. (Original) The method of claim 6 further comprising:

generating the low end acknowledgment from an acknowledgment template; and

populating the low end acknowledgment with the header data from the acknowledgment trigger signal.

8. (Previously presented) The method of claim 1 wherein the acknowledgment trigger signal is a binary enable signal.

9. (Original) The method of claim 8 further comprising:

tracking a sequence of plural data transmission units transferred to the high security assurance destination; and

generating the acknowledgment trigger signal if the received high end acknowledgment corresponds to a next unacknowledged data transmission unit in the tracked sequence.

10. (Original) The method of claim 8 further comprising:

tracking multiple sequences of plural data transmission units transferred to the high security assurance destination;

referencing one of the tracked sequences that corresponds to a time interval in which the high end acknowledgment is received; and

generating the acknowledgment trigger signal if the received high end acknowledgment corresponds to a next unacknowledged data transmission unit in the referenced sequence.

11. (Original) The method of claim 8 further comprising:

tracking header data for each data transmission unit in a sequence of plural data transmission units transferred to the high security assurance destination;

generating the low end acknowledgment from an acknowledgment template in response to the acknowledgment trigger signal; and

populating the low end acknowledgment with the header data for a next unacknowledged data transmission unit in the sequence.

12. (Original) The method of claim 8 further comprising:

tracking header data for multiple sequences of plural data transmission units transferred to the high security assurance destination;

generating the low end acknowledgment from an acknowledgment template in response to the acknowledgment trigger signal;

referencing the header data of one of the tracked sequences that corresponds to a time interval in which the acknowledgment trigger signal is received; and

populating the low end acknowledgment with the header data for a next unacknowledged data transmission unit in the referenced sequence.

13. (Currently amended) A device implemented system for communicating data from a low security assurance source to a high security assurance destination comprising:

a first communication interface receiving data from a low security assurance source according to a communication protocol and transferring the data to a high security assurance destination according to the communication protocol;

a second communication interface receiving a high end acknowledgment for said data according to the communication protocol from the high security assurance destination;

an acknowledgment trigger generating an acknowledgment trigger signal in direct response to the high end acknowledgment for said data; and

an acknowledgment generator generating a low end acknowledgment for said data according to the communication protocol in response to the acknowledgment trigger signal.

14. (Original) The system of claim 13 wherein the acknowledgment trigger determines whether to generate an acknowledgment trigger signal.

15. (Original) The system of claim 14 wherein the acknowledgment trigger determines whether the high end acknowledgment includes information data and generates no acknowledgment trigger signal if information data is included in the high end acknowledgment.

16. (Original) The system of claim 14 wherein the acknowledgment trigger further comprises:

an authorization list identifying low security assurance sources that are authorized to receive low end acknowledgments;

the authorization list being referenced to determine whether an intended recipient of the high end acknowledgment is authorized to receive acknowledgments; and

the acknowledgment trigger generating no acknowledgment trigger signal if the low security assurance source is not identified in the authorization list.

17. (Original) The system of claim 13 wherein the acknowledgment trigger further comprises:

a delay that delays the acknowledgment trigger signal for a random time period in order to delay generation of the low end acknowledgment.

18. (Original) The system of claim 13 wherein the acknowledgment trigger signal includes header data for generating the low end acknowledgment.

19. (Original) The system of claim 18 wherein the acknowledgment generator generates the low end acknowledgment from an acknowledgment template and populates the low end acknowledgment with the header data from the acknowledgment trigger signal.

20. (Original) The system of claim 13 wherein the acknowledgment trigger signal is a binary enable signal.

21. (Original) The system of claim 20 wherein the acknowledgment trigger further comprises:

a sequence list that tracks a sequence of plural data transmission units transferred to the high security assurance destination;

the sequence list being referenced to determine whether the received high end acknowledgment corresponds to a next unacknowledged data transmission unit in the tracked sequence; and

the acknowledgment trigger generating the trigger signal if the received high end acknowledgment corresponds to the next unacknowledged data transmission unit in the referenced sequence list.

22. (Original) The system of claim 20 wherein the acknowledgment trigger further comprises:

plural sequence lists that tracks multiple sequences of plural data transmission units transferred to the high security assurance destination;

one of the plural sequence lists being referenced that corresponds to a time interval in which the high end acknowledgment is received; and

the acknowledgment trigger generating the acknowledgment trigger signal if the received high end acknowledgment corresponds to a next unacknowledged data transmission unit in the referenced sequence list.

23. (Original) The system of claim 20 wherein the acknowledgment generator further comprises:

a header data list that tracks header data for each data transmission unit in a sequence of plural data transmission units transferred to the high security assurance destination;

the acknowledgment generator generates the low end acknowledgment from an acknowledgment template in response to the acknowledgment trigger signal; and

the acknowledgment generator populates the low end acknowledgment with the header data from the header data list for a next unacknowledged data transmission unit in the sequence.

24. (Original) The system of claim 20 wherein the acknowledgment generator further comprises:

plural header data lists that tracks header data for multiple sequences of plural data transmission units transferred to the high security assurance destination;

the acknowledgment generator generates the low end acknowledgment from an acknowledgment template in response to the acknowledgment trigger signal;

one of the plural header data lists that corresponds to a time interval in which the acknowledgment trigger signal is received being referenced for header data of one of the tracked sequences; and

the acknowledgment generator populates the low end acknowledgment with the header data from the referenced header data list for a next unacknowledged data transmission unit in the sequence.

25. (Currently amended) A device implemented system for communicating data from a low security assurance source to a high security assurance destination comprising:

means for receiving data from a low security assurance source according to a communication protocol and transferring the data to a high security assurance destination according to the communication protocol;

means for receiving a high end acknowledgment for said data according to the communication protocol from the high security assurance destination;

means for generating an acknowledgment trigger signal in direct response to the high end acknowledgment for said data; and

means for generating a low end acknowledgment for said data according to the communication protocol in response to the acknowledgment trigger signal.

26. (Original) The method of claim 1 wherein the communication protocol is an acknowledgment based communication protocol.

27. (Original) The method of claim 1 wherein the acknowledgment based communication protocol is a handshaking protocol.

28. (Original) The method of claim 1 wherein the high security assurance destination is a software process.

29. (Original) The system of claim 13 wherein the first and second communication interfaces are network interfaces.

30. (Original) The system of claim 13 wherein the first and second communication interfaces are software communication interfaces.

31. (Original) The system of claim 13 wherein the high security assurance destination is a software process.

32. (Original) The system of claim 13 wherein the system is a network device.

33. (Original) The system of claim 13 wherein the system is an output port.

34. (Original) The system of claim 13 wherein the system is an embedded software component.